

**Change to Conservation Measure for the California Black Rail  
Lower Colorado River Multi-Species Conservation Program  
Program Decision Document 20-004**

**Steering Committee Motion**

The Steering Committee approves Reclamation's recommended changes to conservation measure BLRA1 to revise California black rail water depths, specifically:

**BLRA1 – Create 130 acres of California black rail habitat.** Of the 512 acres of LCR MSCP – created marsh, 130 acres will be created and managed to provide California black rail habitat near occupied habitat in Reaches 3, 4, 5, 6, and 7. This habitat will be provided by designing and managing at least 139 acres of the 512 acres of created Yuma clapper rail habitat to provide habitat for both species. Habitat will be created in patches as large as possible but will not be created in patches smaller than 5 acres. Additional California black rail habitat may be provided by marsh vegetation that becomes established along margins of the 360 acres that will be created of backwaters that will be created in Reaches 3, 4, 5, 6, and 7. These small patches of habitat provided cover for dispersing rails, thereby facilitating linkages between existing breeding populations and the colonization of created habitats.

Design of created habitat will be directed toward establishing moist-soil marshes that support a predominance of three-square bulrush with suitable water depths to ~~replicate conditions present at Mittry Lake and the Bill Williams Delta that~~ support the species. Habitat will be designed and managed to provide an integrated mosaic of patches of cattail, bulrush, and mudflat, interspersed with small patches of open water with varying water depths. Created marsh habitat will generally be managed to limit extreme water level fluctuations during California black rail breeding season (March – July).

Current c

amended October 27, 2010, minor modification PDD-11-004)

**BLRA1 – Create 130 acres of California black rail habitat.** Of the 512 acres of LCR MSCP – created marsh, 130 acres will be created and managed to provide California black rail habitat near occupied habitat in Reaches 3, 4, 5, 6, and 7. This habitat will be provided by designing and managing at least 139 acres of the 512 acres of created Yuma clapper rail habitat to provide habitat for both species. Habitat will be created in patches as large as possible but will not be created in patches smaller than 5 acres. Additional California black rail habitat may be provided by marsh vegetation that becomes established along margins of the 360 acres that will be created of backwaters that will be created in Reaches 3, 4, 5, 6, and 7. These small patches of habitat provided cover for dispersing rails, thereby facilitating linkages between existing breeding populations and the colonization of created habitats.

Design of created habitat will be directed toward establishing moist-soil marshes that support a predominance of three-square bulrush with suitable water depths to replicate conditions present at Mittry Lake and the Bill Williams Delta that support the species. Habitat will be designed and managed to provide an integrated mosaic of patches of cattail, bulrush, and mudflat, interspersed with small patches of open water with varying water depths.

### **Justification**

According to the Habitat Conservation Plan, the marsh habitat created by the LCR MSCP for California black rail must maintain water levels at appropriate depths for this species, which is defined as no more than 1 inch. The LCR MSCP has interpreted this as water levels at created marsh habitat will be maintained between 0 and 1 inch during breeding season. The LCR MSCP currently manages marsh water levels to be as stable as possible during the California black rail breeding season in order to maintain areas at 1-inch depths.

The information that was used to originally inform the LCR MSCP HCP came from known habitat locations near Mittry Lake, Arizona (Flores and Eddleman 1995; Repking and Ohmart 1977). Water levels in this area remain very stable throughout the year. This demonstrates that this species can use areas with stable water levels, but it does not necessarily demonstrate that stable water levels are a habitat requirement of the species. The largest populations of the California black rail are found in the San Francisco Bay area and in the foothills of the Sierra Nevada in Yuba County, CA. More recent research in these areas has shown that the California black rail can adapt to spatially fluctuating water levels during the breeding season (Tsao et al 2009, Tsao et al 2015).

The published research shows that California black rails use shallow water of roughly an inch or less in depth. However, the birds utilize habitats where water depths vary daily by moving into shallower areas as water levels change. Optimal habitats created for California black rails should have gently sloping landscapes that allow them to move into areas of suitable depth as water levels vary (Richmond 2010).

The 1-inch limit reduces the LCR MSCP's ability to fluctuate marsh levels to encourage a mixture of cattail and rush species and manage salt levels. Removal of the specific water depth will not change the intent of the conservation measure, to create and manage appropriate habitat for the species, using the best available information. It should increase management flexibility and habitat quality.

### ***Literature Cited***

Dodge, C. 2019. California Black Rail Documented Use of Water Depths, 2019. Lower Colorado River Multi-Species Conservation Program, Bureau of Reclamation, Boulder City, Nevada.

- Eddleman, W.R. 1989. Biology of the Yuma Clapper Rail in the Southwestern U.S. and Northwestern Mexico, Final Report. U.S. Fish and Wildlife Service Contract 4-AA-30-02060. July 1989.
- Repking, C.F. and R.D. Ohmart. 1977. Distribution and density of black rail populations along the lower Colorado River. *The Condor* 79(4):486–489.
- Richmond, O.M.W. 2010. Inferring Ecological Relationships from Occupancy Patterns for California Black Rails in the Sierra Nevada foothills. Doctoral dissertation. University of California, Berkeley.
- Tsao, D.C., J.Y. Takekawa, I. Woo, J.L. Yee, and J.G. Evens. 2009. Home range, habitat selection, and movements of California black rails at tidal marshes at San Francisco Bay, California. *The Condor* 111(4):599–610.
- Tsao, D.C., R.E. Melcer, Jr., and M. Bradbury. 2015. Distribution and habitat associations of California black rail (*Laterallus jamaicensis cortuniculus*) in the Sacramento–San Joaquin Delta. *San Francisco Estuary and Watershed Science* 13(4).